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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/696,611   | 10/29/2003  | Tomoyuki Sakai       | 10973-108001        | 6842             |
| 26211  | 7590        | 04/12/2005           | EXAMINER            |                  |
| FISH & RICHARDSON P.C.<br>CITIGROUP CENTER 52ND FLOOR<br>153 EAST 53RD STREET<br>NEW YORK, NY 10022-4611 |             |                      | WALK, SAMUEL J      |                  |
|  |             | ART UNIT             |                     | PAPER NUMBER     |
|  |             |                      |                     | 2632             |

DATE MAILED: 04/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                           |                  |  |
|------------------------------|---------------------------|------------------|--|
| <b>Office Action Summary</b> | Application No.           | Applicant(s)     |  |
|                              | 10/696,611                | GARTRELL ET AL.  |  |
|                              | Examiner<br>Samuel J Walk | Art Unit<br>2632 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 10/29/03
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,2 and 6-8 is/are rejected.
- 7) Claim(s) 3-5 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 October 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

|   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/29/2003</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 2 recites the limitation "the drive means" in line 1. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required; however, Examiner will interpret the claim as meaning "the light projection control means" for further prosecution.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-2 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuchi (US 6193398) in view of Schmitt (US 2005/0033486) and in further view of Halasz (US 5890084).

In reference to Claim 1, Okuchi discloses a system for automatically adjusting optical axis direction of vehicle headlights wherein claimed vehicle-posture detecting means met by ECU 20; claimed light projection control means met by ECU 20; claimed wheel-speed detecting means met by right-wheel speed sensor 13 and left-wheel speed sensor 14; claimed posture decision means met by ECU 20, see Col. 14 lns 43-60. Okuchi's ECU 20 receives data from wheel speed sensors 13,14 and calculated the pitch angle to determine the optimum headlight projection. Okuchi does not disclose the utilization of centrifugal force. However, Schmitt teaches of a system and method for control a safety system of a vehicle in response to conditions sensed by tire sensors wherein centrifugal force is calculated using vehicle mass, velocities in the x and y directions and the yaw rate, see para. [0102]. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Schmitt into the system of Okuchi because calculated centrifugal force is a more precise and accurate measurement

Art Unit: 2632

than only wheel speeds and therefore the overall calculation based on a more precise calculation would itself be more precise. The combined system of Okuchi and Schmitt do not disclose the calculation of pitch angle using calculations based on the vehicle width and weight. However, Halasz teaches of a controller for vehicular safety device wherein pitch and roll calculations are based upon several constant which vary with different makes and models of vehicles such as height, width and weight. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Halasz into the system of Okuchi and Schmitt because utilizing constants more accurate and precise to the specific automobile being analyzed and monitored would produce more accurate and precise overall results for determining the optimum light projection path.

In reference to Claim 2, see above rejection in reference to Claim 1. In addition, Okuchi discloses that the movable member 34 is driven in the back and forth directions by the actuator 35L (35R) so that the reflector 32 is vertically inclined about the end of the supporting member 33 as a fulcrum only by an actuator driving angle, see Fig. 2 and Col. 5 lns 24-40.

Art Unit: 2632

In reference to Claim 6, see above rejection in reference to Claim 1. In addition, since the pitch angle calculation as described by Okuchi, Schmitt and Halasz uses wheel speeds and yaw rates to determine centrifugal force of the traveling vehicle, it would have been obvious to one having ordinary skill in the art at the time the invention was made that the vehicle would be turning because a centrifugal force existed.

In reference to Claim 7, see above rejection in reference to Claim 6. In addition, in mathematics, a positive or negative sign is indicative of direction and therefore would have been obvious to a skilled artisan that the ECU 20 would make a decision based on said sign. Also, Okuchi discloses that the optical axes of the right and left headlights 30R and 30L are adjusted. Applicant does not limit the headlight adjustment singularly or separately in a certain direction.

In reference to Claim 8, see above rejection in reference to Claim 7. In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made that the user and/or manufacturer would set a operational range of light projection so that the headlight would not shine in other drivers' eyes or shine onto the ground limiting the view of the driver.

***Allowable Subject Matter***

6. Claims 3-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Weiberle (US 6374171) discloses an apparatus and method for determining vehicle operating and dynamic parameters. Tawa (US 2003/0039124) discloses a headlamp device for a vehicle. Gustafsson (US 2004/0199300) discloses an adaptive filter model for motor vehicle sensor signals.

***Correspondence***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel J Walk whose telephone number is (571) 272-2960. The examiner can normally be reached on M-F: 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on (571) 272-2964. The fax phone number for the

Art Unit: 2632

organization where this application or proceeding is assigned is  
703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
BENJAMIN C. LEE  
PRIMARY EXAMINER